## ABSTRACT

For sequentially input data string, the outliner and the change point are detected through calculation of the outlier score and the change point score by combining a time-series model learning device to learn the generation mechanism of the read data series as the time-series statistic model, a score calculator to calculate the outlier score of each data based on the time-series model parameter and the input data, a moving average calculator to calculate the moving average of the outlier score, a time-series model learning device to learn the generation mechanism of the moving average series as the time-series statistic model and the above score calculator that further calculates the outlier score of the moving average based on the moving average of the outlier score and outputs the result as the change point score of the original data.